

The Common Services Platform Marketplace

Industry Day Event
December 9, 2015

- We look forward to a dialogue today. You will have the opportunity to post questions throughout the presentation. We will post a summary of the questions and answers after this event.
- You can download this deck by selecting it under “Files” and clicking “Download File(s)” any time during this presentation.
- We will also be posting this deck and other related documents in the near future to the Interact site
- You can always contact us at IAEOutreach@gsa.gov



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- **Introduction**
- **Objective**
- **IAE Application Development Process**
 - **Actors**
 - **Agile & DevOps**
 - **Open Source**
 - **API expectations**
 - **Tools**
- **Demo**
- **Conclusion**

Presidential E-Government Initiative managed by the General Services Administration (GSA). The IAE uses innovative processes and technologies to improve systems and operations for those who award, administer, or receive Federal financial assistance (i.e., grants, loans), contracts, and intergovernmental transactions.



- **How IAE works**
 - IAE is governed by the Award Committee for E-Government (ACE) within the CAO Council
 - IAE is co-led by FAS and GSA-IT within GSA
- **Scope of IAE environment (FY14)**
 - The IAE systems have at least 3.4 million users; in SAM alone, there are 1.8 million entity management records of which 538,000 are active registrants
 - More than \$1 trillion in federal assistance and awards across 3.3 million transactions reported in IAE systems
 - More than 500 million hits or page views per month across IAE's systems, including an average of almost 1.25 million searches per week in SAM alone

Current State

**IAE's 10 Standalone Federal
Award Management Systems**

CFDA.gov

CPARS.gov

eSRS.gov

FAPIS.gov

FBO.gov

FPDS.gov

FSRS.gov

PPIRS.gov

SAM.gov

WDOL.gov



Future State

**One Streamlined Environment
with Multiple Functions**



**Modernized Environment will be the
SAM.gov “Data Factory” or “App
Store”**

**Single sign-on
Unified, built in security
Open data
APIs**

**Standardized authentication and role
processes
Standardized tools and business rules
“Apps” for government-wide award
functions**

- **Create a single, foundational Common Services Platform (in the cloud) that allows**
 - faster delivery of new software,
 - cost savings,
 - shared security,
 - increased software quality, and
 - data integration across IAE systems

- **Build user-experience driven applications on that platform**
 - Allows IAE to focus on business needs rather than “plumbing” in the platform
 - Can prototype working software with our users more frequently

- **For developers of IAE applications, how will you be working with us?**
- **What will we ask of you?**
- **What tools are in place now?**

Application Development in IAE



- **Developers are provided all the tools necessary to develop code**
 - Not every tool – your favorite tool may not be there
 - But propose it!
- **Developers are limited in access to what environments they can deploy to**
- **You write it, you test it – everything automated**

| CSP | Core | Product Owner | DevOps | Security |
|-------------------------------|-------------------|-------------------|---------------------------------|--------------|
| Project Creation | | | | |
| | | Define stories | | |
| | Develop | | Create independent tests | |
| | Run unit tests | | | |
| | Check into GitHub | | | |
| Run automated tests and scans | | | | |
| | | Accept stories | | Accept scans |
| | | | Promote code to near production | |
| | | Get user feedback | | |
| | | | | ATO |
| | | | Promote code to production | |

- Using Java Spring, Angular, Postgres, and Mongo for application development
 - Adding Ruby
- GitHub (internal and external) for development
- Docker for containerization
- Jenkins, Selenium, Simian Army for testing – CI and performance testing
- ...many others – you can find all of them on GitHub in the [IAE-Architecture repository](#)

- All teams to be prepared to deliver Production Ready Product Increment in every sprint
- DevOps team to provide IV&V support for all business features i.e. CFDA, FBO, Common Landing Page and Federal Hierarchy.

Release

- All features for the releasable set are done and meet acceptance criteria
- End-to-end system integration and system/performance testing complete (automated)
- Full regression testing complete (automated)
- No must-fix defects
- User, release and installation documentation complete
- 100% of features are developed with an Infrastructure-as-Code implementation
- 100% of code is open source-able
- Feature set accepted by Product Management
- Test results & documentation have been updated

Feature

- Features meet acceptance criteria
- All stories for the features are done
- Code deployed to QA/Staging/Production
- Integration, Performance, 508 testing (automated)
- Functional regression test complete (automated)
- Non-Functional Requirements met*
- No must-fix defects
- Documentation related to the Feature has been updated
- Feature demonstrated in System Demo
- Feature included in build definition and deployment process
- Feature/s accepted by the Product Owner/Program Managers
- Test results & documentation have been updated

User Story

- Stories satisfy acceptance criteria
- Acceptance tests passed (automated)
- Unit tests passed (automated)
- Cumulative unit tests passed (automated)
- NFRs* (508, FISMA, Agile Framework, EA Framework, API standards, Coding standards, UX standards) met
- Test results & documentation have been updated
- Code checked in, merged into mainline, and published to code repository
- Coding Standards followed
- Code peer reviewed
- Code is deployable to a production environment
- Documentation related to the user story has been updated
- No must-fix defects
- Story accepted by product owner

- **Open source – all the code will be public**
 - Ideally will work in the clear
- **Agile development**
 - Scrum on a two-week sprint cycle
- **API-first – use a HAL model for implementing APIs**
 - All business capabilities will be built on top of public-facing APIs

Demonstration

- **This does take practice – using the platform isn't immediately obvious**
- **But it takes care of you and smooths the process of development and implementation**

Stay Tuned!

**Information on the next
Industry Day will be available
shortly - keep checking in with
the IAE industry community on
Interact for details**

How You Can Contribute

- View the presentation on the [IAE Industry Community](#) on interact.gsa.gov
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